reasons for switching and/or non-adherence included: fever (45%), build-up of scar tissue from continued injections (35%), not feeling as if their medication is working (32%), kidney distress (26%), experiencing a relapse (19%) and insomnia (18%). **CONCLUSIONS:** We set out to learn *why*patients switched from one drug to another, not just information that a switch occurred. The more we know about patients' reasons for their behavior, the more we can actively plan and organize patient-centric research, development and outreach. Our results demonstrate that using physician-patient interaction data can add tremendous value to outcomes researchers and health care decision makers.

PND37

A RELATIONSHIP BETWEEN EQ-5D HEALTH STATE CLASSIFICATIONS AND EQ VAS SCORES IN PARKINSON'S DISEASE

Rodriguez Violante M[1], Cervantes Arriaga A[1], Soto Molina H[2], Díaz Martínez JP[3], Pizarro Castellanos M[4]

[1]*Instituto Nacional de Neurología y Neurocirugía, México, Mexico City, Mexico,* [2]*Universidad Autónoma Metropolitana, Mexico City, Mexico,* [3]*HS Estudios Farmacoeconómicos, Mexico City, Mexico,* [4]*Hospital Infantil de México Federico Gómez, Mexico City, Mexico*

OBJECTIVES: Parkinson´s disease is a neurodegenerative disorder with an estimated incidence of 40-50 cases per 100,00 habitants per year. The EQ-5D health-related quality of life instrument comprises a health state classification followed by a health evaluation using a visual analogue scale (VAS). In this paper, we examine the correspondence between VAS scores and health state classifications for a mexican sample, and identify variables which contribute to determining the VAS scores. **METHODS:** A mexican retrospective study of patients having Parkinson´s disease from the National Institute of Neurology and Neurosurgery (INNN) provided EQ-5D data. Information on seveirty, psychosis and socio-demographic characteristics had been collected using other instruments. A stepwise linear regression model was fitted, in which the choice of predictive variables is carried out by an automatic procedure. VAS score was the dependent variable, independent variables comprised EQ-5D health state classifications, severity, age, psychosis and socio-demographic characteristics. **RESULTS:** 248 mexican patients were evaluated in the model: 54% were male and 46% were female; also 74.2% had low severity, 18.5% had moderate severity and 7.3% had advanced severity; in addition, 16.5% of pacientes hadn´t formal education compared to 21% of patients having college or higher education. Finally, 60.1% of patients were 60 years old or more when the retrospective study was performed. EQ-5D health state classifications (personal hygiene, mobility, anxiety/depression) were statistically significant fitting the model. In addition, VAS score was influenced also by the subject's educational attainment ($p\text{-value}<.05$, R^2=19). Changes in VAS score were explained by changes in both EQ-5D mobility and anxiety. **CONCLUSIONS:** In this sample, EQ VAS scores were predictable from the EQ-5D health state classifications (personal higiene, mobility and anxiety/depression), although there also existed another variable (educational attainment) which contributed systematically and independently towards determining such scores.

PND38

VAS EQ-5D UTILITY INDEX IN PARKINSON'S DISEASE

Rodriguez Violante M[1], Cervantes Arriaga A[1], Soto Molina H[2], Díaz Martínez JP[3], Pizarro Castellanos M[4]

[1]*Instituto Nacional de Neurología y Neurocirugía, México, Mexico City, Mexico,* [2]*Universidad Autónoma Metropolitana, Mexico City, Mexico,* [3]*HS Estudios Farmacoeconómicos, Mexico City, Mexico,* [4]*Hospital Infantil de México Federico Gómez, Mexico City, Mexico*

OBJECTIVES: Parkinson´s disease is a neurodegenerative disorder with an estimated incidence of 40-50 cases per 100,00 habitants per year. The EQ-5D is a brief, multi-attribute, preference-based health status measure. In this paper, we describe the development of a statistical model for generating mexican sample-based EQ-5D utility index for patients having Parkinson´s disease. **METHODS:** A mexican retrospective study of patients having Parkinson´s disease from the National Institute of Neurology and Neurosurgery (INNN) provided EQ-5D health state classification. Respondents valued EQ-5D health states using the visual analogue score (VAS) method. A linear regression model was fitted, VAS score was the dependent variable and the independent variables comprised EQ-5D health state classifications. Finally, an algorithm for computing the utility index was performed from the model output. **RESULTS:** 248 mexican patients were evaluated in the model: 54% were male and 46% were female; also 74.2% had low severity, 18.5% had moderate severity and 7.3% had advanced severity; in addition, 16.5% of pacientes hadn´t formal education compared to 21% of patients having college or higher education. Finally, 60.1% of patients were 60 years old or more when the retrospective study was performed. Our model for the EQ-5D included ordinal terms to capture the effect of departures from perfect health as well as interaction effects. After fitting the model, the utility index for Parkinson´s disease reported was 0.8694. **CONCLUSIONS:** The model best predicts the values for observed health states. The resulting preference estimates represent a significant enhancement of the EQ-5D's utility for health status assessment and economic analysis in Parkinson´s disease for mexican patients.

PND39

THE HUMANISTIC AND ECONOMIC BURDEN OF RESTLESS LEGS SYNDROME

Durgin T[1], Witt EA[2], Fishman J[1]

[1]*UCB Pharma, Smyrna, GA, USA,* [2]*Kantar Health, Princeton, NJ, USA*

OBJECTIVES: To examine health status, health care resource use, work productivity, and associated costs for patients with restless legs syndrome (RLS) compared to a control cohort and the association between these variables and increased symptom severity. **METHODS:** The sample was drawn from the 2012 National Health and Wellness Survey (NHWS; n = 71,157) an annual survey of US adults. Respondents reporting a diagnosis of RLS (n = 2,392; 56.9% women, Mean age 55.9 years) were propensity score matched on demographics to an equally-sized non-diagnosed comparison group. Patients self-reported RLS symptom severity (mild, moderate, severe), health care resource use and work productivity. Costs of health care use and work productivity loss were extrapolated from existing governmental estimates and applied to NHWS averages. **RESULTS:** RLS patients, when compared to matched controls, reported significantly more Health Care Provider (HCP) visits (7.46 *vs.* 4.42, $p<.001$), Emergency Room (ER) visits (0.45 *vs.* 0.24, $p<.001$), and hospitalizations (0.24 *vs.* 0.15, $p<.001$) than controls over the previous 6 month period. RLS patients also reported a significantly greater percentage of absenteeism (8.10 *vs.* 3.92, $p<.001$), presenteeism (26.48 *vs.* 15.78, $p<.001$), overall work productivity loss (30.09 *vs.* 18.07, $p<.001$), and activity impairment (46.11 *vs.* 29.70, $p<.001$). RLS patients accumulated more direct ($28,871 vs. $17,619, $p<.001$) and indirect ($10,199 vs. $6,452, $p<.001$) costs annually than controls. For all outcomes reported, an increase in RLS severity was significantly correlated with worse health outcomes and increased costs. **CONCLUSIONS:** This study sought to quantify the burden that RLS places on patients–especially with regard to health care costs—as little is known about the economic burden of RLS. Results demonstrate that RLS places a significant humanistic and economic burden on patients including loss in work productivity, increased health care utilization, and, as a result, greater direct and indirect costs.

PND40

NEEDLE PHOBIA AND ASSOCIATED CLINICAL PRACTICE PATTERNS AMONG PATIENTS WITH MULTIPLE SCLEROSIS (MS) IN EUROPE AND THE UNITED STATES

Narayanan S[1], Hautamaki E[1], Khan H[2], Gabriele S[2], White J[2]

[1]*Ipsos Healthcare, Columbia, MD, USA,* [2]*Ipsos Healthcare, London, UK*

OBJECTIVES: To assess the prevalence of needle phobia and associated clinical practice patterns among patients with MS in Europe and the United States (US). **METHODS:** A multicenter retrospective chart-review study of MS patients to collect de-identified data on diagnosis, clinical status and treatment approaches. Health care providers (HCPs, 95% neurologists) in UK/Germany/France/Italy/Spain (EU5) and US were screened for duration of practice (>=3yrs) and patient volume (>=15 MS patients/month) and recruited from a large panel to be geographically representative in each country. Medical charts of the next 10 consecutive MS patients were selected by each HCP. **RESULTS:** 360 HCPs abstracted chart data on 3490 eligible MS patients (mean age:39yrs; female:66%). Across markets, 12% (n=425; EU5:10%; US:19%) of patients had needle phobia/did not want to inject. Age, gender, and disease severity did not differ compared to patients who did not have injection concerns. Among patients with injection concerns, 40% in the EU5 and 30% in the US were not currently on treatment, compared with 29% and 20%, respectively, who did not have injection concerns. Patients with injection concerns who discontinued treatment (13%) had been on their most recent treatment for a mean of 28mo (EU5) to 37mo (US). Injection-site reactions, flu-like symptoms, or other tolerability/side-effects/safety concerns were reported as the reason for discontinuation in 43% (EU5) to 50% (US) of patients. Patient refusal was the most common reason that patients with injection concerns are not currently receiving treatment (EU5:75%, US:65%). Among all relapsing-remitting MS patients in their practice, HCPs noted 26%(US)/34%(EU5) of patients requesting an oral treatment; among those, only 20%(US)/13%(EU5) were subsequently switched to oral treatment. **CONCLUSIONS:** Needle phobia may add to the humanistic burden of MS and may lead to treatment discontinuation and potentially poorer treatment outcomes. Further research is warranted to quantify this burden and devise strategies to alleviate it.

PND41

PERSONALIZING MEDICINE BY PATIENTS WILLINGNESS TO MAKE RISK-BENEFIT TRADE-OFFS

Shih V[1], Bui CT[1], Gipson G[1], Yan S[1], Loucks A[1], Miller E[1], Waubant E[1], Wilson LS[2]

[1]*University of California, San Francisco, San Francisco, CA, USA,* [2]*University of California San Francisco, San Francisco, CA, USA*

OBJECTIVES: Relapsing-remitting multiple sclerosis (RRMS) patients have a variety of disease-modifying treatments available with varying risk-benefit trade-offs requiring engaging patients in shared decision making, and personalizing patients' treatment by their willingness to accept risk for benefits. This study aimed to quantify the amount of risk RRMS patients were willing to take for three levels of health improvement, compare if the acceptable risk varied by baseline disease severity or level of improvement gained, and identify predictors of risk attitude to help guide treatment choices. **METHODS:** 239 RRMS patients from a neurology clinic completed a questionnaire about personal and disease characteristics and a computerized standard gamble survey that elicited their utility for current MS health states relative to improved health states with treatment. From these, patients' acceptable risks of death for three levels of health improvement were calculated. Non-parametric statistical analyses were used to compare groups and linear regressions were run to identify significant predictors of risk attitude. **RESULTS:** 199 patients were included in the final analysis after removing incomplete or incoherent responses. They were predominantly non-Hispanic white females. On average, RRMS patients were willing to take an 8.38% risk of death for an improvement in health state. The mean acceptable risk of death for mild, moderate, and substantial improvement was 5.72%, 8.03%, and 11.44% (p=0.0001). Patients with current moderate-severe disease were willing to risk significantly more than patients with mild disease (all improvement levels, p<0.05). Significant predictors of higher risk acceptance included estimated Expanded Disability Status Scale (EDSS) score and non-white ethnicity. Per point increase in estimated EDSS, patients were willing to accept 1-2% more risk of death. **CONCLUSIONS:** RRMS patients are willing to risk more as their disease worsens and as treatment benefits gained are greater. Patient characteristics, including risk-benefit preferences should be used to personalize medicine to the individual.

PND42

VALIDATION OF THE UNITED STATES HUNTINGTON'S DISEASE QUALITY OF LIFE BATTERY FOR CARERS

Khemiri A[1], Clay E[2], Dorey J[3], Auquier P[4], Toumi M[5]

[1]*Creativ-Ceutical, Tunis, Tunisia,* [2]*Creativ-Ceutical, Paris, France,* [3]*Creativ-Ceutical United States, Chicago, IL, USA,* [4]*Université de la Méditerranée, Marseille, France,* [5]*University Claude Bernard Lyon 1, Lyon, France*